simultaneous excitation is performed using a single circuit [(16)].

3. The method according to claim 1 [or 2], characterised in that calculation of the difference in transit time comprises intercorrelating signals received at each one of the transducers and seeking an intercorrelation maximum.

4. The method according to claim 1 [or 2], characterised in that the calculation of the difference in transit time comprises intercorrelating received signals, calculating the Hilbert transform of intercorrelation, and seeking zeros of the Hilbert transform.

6. The method according to [one of claims 1-5] claim 1, characterised in that it comprises calibration step by measuring ultrasound propagation time outside the fluid vein.

8. The method according to [one of claims 1-7] claim 1, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

9. A driver circuit for a device for measuring displacement of the fluid in a conduit [(3)], with at least two transducers [(1, 2; 12, 13)] defining a measurement chord, the circuit comprising:

- means for simultaneously exciting [(16)] two transducers;
- means [(17, 18)] for simultaneously measuring received signals at each one of the transducers originating from the other; and
- switching means [(15)] for successively connecting the excitation means and measurement means to the terminals [(10, 11)] of the transducers,

as well as means for synchronously digitizing signals received at one of the transducers.

11. A circuit according to claim 9 [or 10], characterised in that the measurement means comprise at least one amplifier [(19, 20)] and at least one analog/digital converter [(21, 22)].

12. A device for measuring fluid displacement in a conduit, comprising at least two transducers and a driver circuit according to claim 9 [, 10 or 11].

-- 13. The method according to claim 2, characterised in that calculation of the difference in transit time comprises intercorrelating signals received at each one of the transducers and seeking an intercorrelation maximum.

14. The method according to claim 2, characterised in that the calculation of the difference in transit time comprises intercorrelating received signals, calculating the Hilbert transform of intercorrelation, and seeking zeros of the Hilbert transform.

15. The method according to claim 2, characterised in that it comprises a calibration

step by measuring ultrasound propagation time outside the fluid vein.

16. The method according to claim 3, characterised in that it comprises a calibration step by measuring ultrasound propagation time outside the fluid vein.

17. The method according to claim 4, characterised in that it comprises a calibration step by measuring ultrasound propagation time outside the fluid vein.

18. The method according to claim 5, characterised in that it comprises a calibration step by measuring ultrasound propagation time outside the fluid vein.

19. The method according to claim 2, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

20. The method according to claim 3, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

21. The method according to claim 4, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

22. The method according to claim 5, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

23. The method according to claim 6, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

24. The method according to claim 7, characterised in that it comprises a step of correcting values of ultrasound propagation time outside the fluid vein, as a function of temperature.

25. A circuit according to claim 10, characterised in that the measurement means comprise at least one amplifier and at least one analog/digital converter.

26. A device for measuring fluid displacement in a conduit, comprising at least two transducers and a driver circuit according to claim 10.

27. A device for measuring fluid displacement in the conduit, comprising at least two transducers and a driver circuit according to claim 11.--